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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,789

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Robert A. Greene

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12/13/2005

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EXAMINER

PHAM, LONG

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/807,789	Applicant(s) GREENE, ROBERT A.	
	Examiner Long Pham	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
4a) Of the above claim(s) 14, 18-31 and 38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-17, 32-37, and 39-44 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2 IDS</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of claims 1-13, 15-17, and 32-44 in the reply filed on 09/29/05 is acknowledged. The traversal is on the ground(s) that see the election of 09/29/05. This is not found persuasive because claim 18 clearly requires the first carrier to be coupled to the common interface before the second carrier is coupled to the common interface and as for the species traverse, it is noted that independent claim 32 is generic to independent claim 39, further notice that claim 38 should be grouped together with claim 14.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13, 15-17, and 32-37 and 39-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soldavini et al. (US patent 5,909,034) in combination with Kwark et al. (US publication 2005/0116013) and Cini et al. (US patent 5,165,590).

With respect to claims 1, 32, 34, 35, 36, and 39, Soldavini et al. teach an integrated circuit comprising of (see figs. 1-6 and associated text):

Internal circuitry;

Package having at least two pins (27,28,29,30);

A first carrier 44a communicatively coupling said internal circuitry with a first one 27 of said at least two pins, wherein said first carrier carries a polarity;

A second carriers 44b communicatively coupling said internal circuitry with said first one of said at least two pins, wherein said second carrier carries a polarity;

A third carrier communicatively coupling said internal circuitry with a second one 30 of said at least two pins, wherein said third carrier carries a polarity; and

A fourth carrier communicatively coupling said internal circuitry with said second one of said at least two pins, wherein said fourth carrier carries a polarity.

Soldavini et al. teach that the first and second carriers coupled to the first pin and third and fourth carriers coupled to second pin have polarity but fail to teach the carriers coupled to the same pin have opposite polarity.

Kwark et al. teach the coupling of carriers or bonding wires having opposite polarity reduces the effective impedance. See [0046].

It would have been obvious to one of ordinary skill in the art of making semiconductor devices to have carriers or bonding wires coupling to a pin having opposite polarity in the device of Soldavini et al. to achieve the above benefit.

With respect to claim 2, Soldavini et al. further teach the package encloses the internal circuitry. See fig. 4.

With respect to claims 3 and 40, Soldavini et al. further teach the at least two pins provide an interface for the internal circuitry to a component external to the integrated circuit. See fig. 4.

With respect to claim 4, Soldavini et al. further teach the first, second, third, and fourth carriers are bondwires. See fig. 4.

With respect to claims 5, 6, 7, 8, 9, 32, 39, and 42, Soldavini et al. further teach an internal circuit fail to teach the internal circuitry includes, resonant frequency circuitry, a differential voltage controlled oscillator, or resonant tank.

However, It would have been obvious to one of ordinary skill in the art of making semiconductor devices to include internal circuitry includes, resonant frequency circuitry, a differential voltage controlled oscillator, or resonant tank in the internal circuitry of Soldavini et al. because that would produce a system having reduced impedance. See above.

With respect to claims 10, 11, 33, 39, and 43, the bonding wires of the Soldavini et al. inherently have inductance.

With respect to claims 12, 13, 41, 37, and 44, Soldavini et al. further teach coupling the pins together (through bonding wires see fig. 4) but fail to teach coupling the pins externally.

Cini et al. coupling pins 5,6 externally to improve connections. See abstract and fig. 1.

It would have been obvious to one of ordinary skill in the art of making semiconductor devices to incorporate the teaching of Cini et al. into the device of Soldavini et al. and Kwark et al. to achieve the above benefit.

With respect to claim 15, Soldavini et al. in combination with Kwark et al. further teach the first, second, third, and fourth carriers are arranged in parallel interleaving polarities carried thereby. See the above.

With respect to claim 16, Soldavini et al. further teach that first and second carriers are neighbors and the third and fourth carriers are neighbors. See fig. 4.

With respect to claim 17, Soldavini et al. further teach that first and second pins are neighbors. See fig. 4.

Conclusion

Art Unit: 2814

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long Pham whose telephone number is 571-272-1714. The examiner can normally be reached on Mon-Frid, 10am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Long Pham
Primary Examiner
Art Unit 2814

LP